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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,149	08/30/2001	Nathan Y. Moyal	0325.00495	8648

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EXAMINER

NGUYEN, LINH V

ART UNIT	PAPER NUMBER
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2819

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

P.S.

**Office Action Summary**

Application No.

09/943,149

Applicant(s)

MOYAL ET AL.

Examiner

Linh V. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. Information disclosure statement filed 1/11/02 with a list of all patents, publication or other related information submitted is misplaced. Please send or fax another copy of "Information disclosure Statement" with a list of all patents, publication or other related documentation.

### ***Drawings***

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. This application has been filed with informal drawings, which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or  
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

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5. Claims 1 - 3 rejected under 35 U.S.C. 102(e) as being anticipated by Gotz et al. German patent No. 19946200 A1.

Regarding to claims 1 – 3, Fig. 1 Gotz et al disclose an apparatus comprising: a phase lock loop (PLL) configured to multiply an input frequency to generate an output frequency in response to a lock signal; and a lock circuit (CL) configured to generate the lock signal, wherein the PLL is configured with MUX2 to select a reference frequency as the input frequency when in a first mode and a divided (FT4) frequency of the input frequency when in a second mode.

Regarding to claim 2, wherein the first mode is further configured to increase a feedback divide ratio (f2MUX1).

Regarding to claim 3, wherein the second mode is further configured to decrease the feedback divide ratio (f1MUX1).

Regarding to claim 4, wherein the lock circuit comprises a lock decision logic circuit (CL).

Regarding to claim 6, wherein the lock circuit is configured in response to an internal signal (output signal of change over control circuit (US)).

Regarding to claim 9, wherein the PLL comprises: a first switchable divider (MUX2) configured to generate a reference frequency in response to the input frequency; a PLL logic circuit configured to generate the output frequency (fVCO) in response to the reference; and a second switchable divider (MUX1) configured to generate feedback frequency in response to said output frequency.

Regarding to claim 10, wherein said first and second switchable dividers are further configured in response to said lock signal (see Fig. 1).

Regarding to claim 11 wherein the first switchable divider comprises a first divider (FT4) and a first multiplexer (MUX2), wherein the first multiplexer is configured to select the first divided output frequency or the input frequency and present the reference frequency; and the second switchable divider comprises a second divider (FT1), a third divider (FT2) and a second multiplexer (MUX1),

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wherein said multiplexer is configured to select a second divided output frequency or a third divided frequency and present the feedback frequency ( $f_{1MUX1}$ ,  $f_{2MUX1}$ ).

Regarding to claim 12, wherein said second and third dividers are configured in series (FT1, FT2).

Regarding to claim 14, where in second and third dividers comprise multi-channel dividers (page 2 lines 4 –6, disclosing PLL circuit for TDMA, GSM systems, therefore multi-channel is inherent to PLL circuit of Gotz et al.).

Regarding to claim 15, Fig. 1 Gotz et al. disclosing circuit having: means for multiplying an input frequency in response to a lock signal; means for generating an output frequency in response to said input frequency; means for generating said lock signal; means for selecting said input frequency to be a reference frequency when in a first mode and a divided frequency of said input frequency when in a second mode.

Regarding to claims 16 – 20, the steps in the claimed method are deemed to be made clearly taught by Gotz et al. as applied to claims 1 – 4, 9 – 12, and 15 above.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gotz et al.

Gotz et al. as applied to claim 11 above disclose every aspect of applicant's claimed invention except that wherein said second and third dividers are configured in parallel. Fig. 1 Gotz et al. shows dividers

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(FT, FT2) circuit arrangement is an equivalent structure known in the art and furthermore this equivalent circuit also has been indicated by applicant with respect to Fig. 5, 6 or Fig. 7, 8 of applicant application. Therefore Gotz et al. structures are equivalent to applicant's claimed invention.

8. Claims 5, 7 and 8 rejected under 35 U.S.C. 103(a) as being unpatentable over Gotz et al. in view of Lada, Jr. et al. U.S. patent No. 5, 142, 247.

Gotz et al. as applied to claim 1 above disclose every aspect of applicant's claimed invention except wherein the control logic circuit comprises a timer, and a user externally controls the lock circuit.

Fig. 2 Lada discloses a Phase Lock Loop circuit having a lock logic circuit (30) externally controlled by a user (SEL) to generate a lock signal (REFSEL) wherein the lock logic circuit is external and comprises a timer (33).

Gotz et al. and Lada, Jr. et al., are analogous because they are from similar problem solving for Phase Lock Loop circuit. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply external control of lock logic circuit with timer of Lada et al. to the internal control of lock logic circuit of Gotz et al. for the purpose of maintaining the pulse for a predetermined number of cycles so that the pulse duration exceeds the time necessary for Phase Lock Loop to acquire and lock onto the new frequency (Lada, Col. 6 lines 41 – 47).

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh Van Nguyen whose telephone number is (703) 305-1934. The examiner can normally be reached from 8:30 – 5:00 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Michael Tokar can be reached at (703) 305-3493. The fax phone numbers for the organization


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where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

LVN

November 14, 2002

  
Michael Tokar  
Supervisory Patent Examiner  
Technology Center 2800